

**PATENT**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

**In re Application of:**

Havenga et al.

**Serial No.:** To be assigned

**Filed:** August 22, 2003

**For:** GENE DELIVERY VECTORS  
PROVIDED WITH A TISSUE TROPISM  
FOR DENDRITIC CELLS AND METHODS  
OF USE

**Examiner (presumed):** M. Marvich, Ph.D.

**Group Art Unit (presumed):** 1636

**Attorney Docket No.:** 2578-4489.1US

**CERTIFICATE OF MAILING**

I hereby certify that this correspondence along with any attachments referred to or identified as being attached or enclosed is being deposited with the United States Postal Service as First Class Mail on the date of deposit shown below with sufficient postage and in an envelope addressed to the Commissioner for Patents, Washington, D.C. 20231.

August 22, 2003  
Date

Signature

Betty Vowles  
Name (Type/Print)

**INFORMATION DISCLOSURE STATEMENT**

Commissioner for Patents  
Washington, D.C. 20231

Sir:

In compliance with the duty to disclose information material to patentability pursuant to 37 C.F.R. § 1.56, it is respectfully requested that this Information Disclosure Statement be entered and the documents listed on attached Form PTO/SB/08A be considered by the Examiner and made of record. Copies of the listed documents are enclosed pursuant to 37 C.F.R. § 1.98(a).

In accordance with 37 C.F.R. § 1.97(g) and (h), filing of this Information Disclosure Statement is not to be construed as a representation that a search has been made or an admission that the information cited herein is, or is considered to be, material to patentability as defined in 37 C.F.R. § 1.56(b). Further, no representation is made by Applicants herein that no other possible material information as defined in 37 C.F.R. § 1.56(b) exists.

U.S. Patent Documents

<u>U.S. Patent No.</u>	<u>Publication Date</u>	<u>Patentee</u>
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US- 4,517,686 #	05/21/1985	Ruoslahti et al.
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<u>U.S. Patent No.</u>	<u>Publication Date</u>	<u>Patentee</u>
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<u>Document No.</u>	<u>Publication Date</u>	<u>Patentee</u>
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<u>Document No.</u>	<u>Publication Date</u>	<u>Patentee</u>
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WO 94/17832 #	08/14/1994	PCT
WO 94/24299 #	10/27/1994	PCT
WO 94/26915 #	11/24/1994	PCT
WO 95/05201 #	02/23/1995	PCT
WO 95/06745 #	03/09/1995	PCT
WO 95/14785 #	06/01/1995	PCT
WO 95/16037 #	06/15/1995	PCT
WO 95/21259 #	08/10/1995	PCT
WO 95/26412 #	10/05/1995	PCT
WO 95/27071 #	10/12/1995	PCT
WO 95/31187 #	11/23/1995	PCT
WO 95/31566 #	11/23/1995	PCT
WO 96/00790 #	01/11/1996	PCT
WO 96/07739 #	03/14/1996	PCT
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<u>Document No.</u>	<u>Publication Date</u>	<u>Patentee</u>
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#Pursuant to 37 C.F.R. § 1.98(d), copies of the previously identified patents are not being provided since they were previously cited by or submitted to the Office in the following prior application:

Serial No.: 09/348,354  
Filed: July 7, 1999  
For: CHIMAERIC ADENOVIRUSES

and Serial No.: 09/665,472  
File September 20, 2000  
For: GENE DELIVERY VEHICLES PROVIDED WITH A TISSUE TROPISM FOR DENDRITIC CELLS.

In compliance with the duty to disclose information material to patentability pursuant to 37 C.F.R. § 1.56 & 1.175, Applicants offer hereby identifies the following listed copending applications naming the same inventor(s):

Attorney Docket No.: 2578-3840US  
Serial No.: 09/065,752  
Filing Date: 4/24/1998  
Title: PACKAGING SYSTEMS FOR HUMAN RECOMBINANT  
ADENOVIRUS TO BE USED IN GENE THERAPY

Attorney Docket No.: 2578-4230US  
Serial No.: 09/214,836  
Filing Date: 10/4/1999  
Title: MELANOMA ASSOCIATED PEPTIDE ANALOGUES AND  
VACCINES AGAINST MELANOMA

Attorney Docket No.: 2578-4075US  
Serial No.: 09/332,803  
Filing Date: 6/14/1999  
Title: PACKAGING SYSTEMS FOR HUMAN RECOMBINANT  
ADENOVIRUS TO BE USED IN GENE THERAPY

Attorney Docket No.: 2578-4123.2US  
Serial No.: 09/348,354  
Filing Date: 7/7/1999  
Title: CHIMAERIC ADENOVIRUSES

**Attorney Docket No.: 2578-4489.1US**

Attorney Docket No.: 2578-4231US  
Serial No.: 09/444,284  
Filing Date: 11/19/1999  
Title: GENE DELIVERY VECTORS PROVIDED WITH A TISSUE  
TROPISM FOR SMOOTH MUSCLE CELLS, AND/OR  
ENDOTHELIAL CELLS

Attorney Docket No.: 2578-3982.2US  
Serial No.: 09/517,898  
Filing Date: 3/3/2000  
Title: MEANS AND METHODS FOR FIBROBLAST-LIKE OR  
MACROPHAGE-LIKE CELL TRANSDUCTION

Attorney Docket No.: 2578-4038.1US  
Serial No.: 09/549,463  
Filing Date: 4/14/2000  
Title: RECOMBINANT PROTEIN PRODUCTION IN A HUMAN CELL

Attorney Docket No.: 2578-4070.1US  
Serial No.: 09/573,740  
Filing Date: 5/18/2000  
Title: SEROTYPES OF ADENOVIRUS AND USES THEREOF

Attorney Docket No.: 2578-4192.1US  
Serial No.: 09/657,492  
Filing Date: 9/8/2000  
Title: MODIFIED ADENOVIRAL VECTORS FOR USE IN GENE  
THERAPY

Attorney Docket No.: 2578-4489US  
Serial No.: 09/665,472  
Filing Date: 9/20/2000  
Title: GENE DELIVERY VECTORS PROVIDED WITH A TISSUE  
TROPISM FOR DENDRITIC CELLS

Attorney Docket No.: 2578-4843US  
Serial No.: 09/843,894  
Filing Date: 4/27/2001  
Title: AAV VECTOR PRODUCTION

**Attorney Docket No.: 2578-4489.1US**

Attorney Docket No.: 2578-3840.1US  
Serial No.: 09/900,062  
Filing Date: 7/6/2001  
Title: PACKAGING SYSTEMS FOR HUMAN RECOMBINANT  
ADENOVIRUS TO BE USED IN GENE THERAPY

Attorney Docket No.: 2578-3935.1US  
Serial No.: 09/912,552  
Filing Date: 7/23/2001  
Title: PACKAGING SYSTEMS FOR HUMAN RECOMBINANT  
ADENOVIRUS TO BE USED IN  
GENE THERAPY

Attorney Docket No.: 2578-3833.5US  
Serial No.: 09/918,029  
Filing Date: 7/30/2001  
Title: PACKAGING SYSTEMS FOR HUMAN RECOMBINANT  
ADENOVIRUS TO BE USED IN GENE THERAPY

Attorney Docket No.: 2578-4509.1US  
Serial No.: 09/928,262  
Filing Date: 8/10/2001  
Title: GENE DELIVERY VECTORS WITH CELL TYPE SPECIFICITY  
FOR PRIMARY HUMAN CHONDROCYTES

Attorney Docket No.: 2578-4123.1US  
Serial No.: 09/953,280  
Filing Date: 9/14/2001  
Title: CHIMAERIC ADENOVIRUSES

Attorney Docket No.: 2578-5148US  
Serial No.: 10/002,750  
Filing Date: 11/15/2001  
Title: COMPLEMENTING CELL LINES

Attorney Docket No.: 2578-5006.1US  
Serial No.: 10/010,645  
Filing Date: 11/13/2001  
Title: GENE DELIVERY VECTORS WITH CELL TYPE SPECIFICITY  
FOR MESENCHYMAL STEM CELLS

**Attorney Docket No.: 2578-4489.1US**

Attorney Docket No.: 2578-3833.6US  
Serial No.: 10/038,271  
Filing Date: 10/23/2001  
Title: PACKAGING SYSTEMS FOR HUMAN RECOMBINANT  
ADENOVIRUS TO BE USED IN GENE THERAPY

Attorney Docket No.: 2578-5226US  
Serial No.: 10/040,949  
Filing Date: 1/7/2002  
Title: INFECTION WITH CHIMAERIC ADENOVIRUSES OF CELLS  
NEGATIVE FOR THE ADENOVIRUS SEROTYPE 5 COXSACKI  
ADENOVIRUS RECEPTOR (CAR)

Attorney Docket No.: 2578-5233US  
Serial No.: 10/042,770  
Filing Date: 1/9/2002  
Title: GENE THERAPY FOR ENHANCING AND/OR INDUCING  
ANGIOGENESIS

Attorney Docket No.: 2578-3833.7US  
Serial No.: 10/125,751  
Filing Date: 4/18/2002  
Title: PACKAGING SYSTEMS FOR HUMAN RECOMBINANT  
ADENOVIRUS TO BE USED IN  
GENE THERAPY

Attorney Docket No.: 2578-3955.1US  
Serial No.: 10/136,139  
Filing Date: 5/1/2002  
Title: MEANS AND METHODS FOR NUCLEIC ACID DELIVERY  
VEHICLE DESIGN AND  
NUCLEIC ACID TRANSFER

Attorney Docket No.: 2578-4615.1US  
Serial No.: 10/164,085  
Filing Date: 6/4/2002  
Title: COMPLEMENTING CELL LINES

Attorney Docket No.: 2578-3833.8US  
Serial No.: 10/219,414  
Filing Date: 8/15/2002  
Title: STOCKS OF REPLICATION DEFICIENT ADENOVIRUS

**Attorney Docket No.: 2578-4489.1US**

Attorney Docket No.: 2578-5233.1US  
Serial No.: 10/224,249  
Filing Date: 8/19/2002  
Title: GENE THERAPY FOR ENHANCING AND/OR INDUCING  
ANGIOGENESIS

Attorney Docket No.: 2578-4215.1US  
Serial No.: 10/231,735  
Filing Date: 8/28/2002  
Title: INTERLEUKIN-3 GENE THERAPY FOR CANCER

Attorney Docket No.: 2578-4038.2US  
Serial No.: 10/234,007  
Filing Date: 9/3/2002  
Title: RECOMBINANT PROTEIN PRODUCTION IN A HUMAN CELL

Attorney Docket No.: 2578-4080.1US  
Serial No.: 10/235,175  
Filing Date: 9/4/2002  
Title: TARGETED DELIVERY THROUGH A CATIONIC AMINO ACID  
TRANSPORTER

Attorney Docket No.: 2578-4615.2US  
Serial No.: 10/272,041  
Filing Date: 10/15/2002  
Title: COMPLEMENTING CELL LINES

Attorney Docket No.: 2578-5592US  
Serial No.: 10/305,435  
Filing Date: 11/25/2002  
Title: METHODS AND MEANS FOR ENHANCING SKIN  
TRANSPLANTATION USING GENE DELIVERY VEHICLES  
HAVING TROPISM FOR PRIMARY FIBROBLASTS, AS WELL  
AS OTHER USES THEREOF (PRIMAIRE FIBROBLASTEN)

Attorney Docket No.: 2578-5832US  
Serial No.: 10/381,088  
Filing Date: 3/20/2003  
Title: ADENOVIRAL VECTORS PROVIDED WITH A TROPISM FOR  
DENDRITIC CELLS

**Attorney Docket No.:** 2578-4489.1US

Attorney Docket No.: 2578-5904US  
Serial No.: 10/381,857  
Filing Date: 3/26/2003  
Title: ADENOVIRAL VECTORS FOR GENE DELIVERY IN  
SKELETAL MUSCLE CELLS OR MYOBLASTS

Attorney Docket No.: 2578-3840.2US  
Serial No.: 10/396,548  
Filing Date: 3/25/2003  
Title: PACKAGING SYSTEMS FOR HUMAN RECOMBINANT  
ADENOVIRUS TO BE USED IN GENE THERAPY

Attorney Docket No.: 2578-3833.9US  
Serial No.: 10/618,526  
Filing Date: 7/11/2003  
Title: PACKAGING SYSTEMS FOR HUMAN RECOMBINANT  
ADENOVIRUS TO BE USED IN GENE THERAPY

This Information Disclosure Statement is filed before the mailing date of the first Office  
Action on the merits.

Respectfully submitted,



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Date: April 3, 2003  
ACT/jml/bv

Enclosures: Form PTO-1449 or PTO/SB/08

Document in ProLaw



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**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet 1 of 9

**Complete if Known**

Application Number	To be assigned
Filing Date	August 22, 2003
First Named Inventor	Havenga et al.
Group Art Unit	1636 (presumed)
Examiner Name	Maria Marvich, Ph.D. (presumed)
Attorney Docket Number	2578-4489.1US

**U.S. PATENT DOCUMENTS**

Examiner Initials *	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number - Kind Code <sup>2</sup> (if known)			
		US- 4,487,829	12/11/1984	Sharp et al.	
		US- 4,517,686	05/21/1985	Ruoslahti et al.	
		US- 4,578,079	03/25/1986	Ruoslahti et al.	
		US- 4,589,881	05/20/1986	Pierschbacher et al.	
		US- 4,593,002	06/03/1986	Dulbecco	
		US- 4,792,525	12/20/1988	Ruoslahti et al.	
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		US- 5,246,921	09/21/1993	Reddy et al.	
		US- 5,332,567	07/26/1994	Goldenberg	
		US- 5,349,053	09/20/1994	Landolfi	
		US- 5,403,484	04/04/1995	Ladner et al.	

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		Country Code <sup>3</sup> - Number <sup>4</sup> - Kind Code <sup>5</sup> (if known)				
		259212	03/09/1988	EP		
		2078631	03/19/1990	JP		
		WO 91/00360	01/10/1991	PCT		
		WO 91/05805	05/02/1991	PCT		
		WO 91/05871	05/02/1991	PCT		
		WO 92/02553	02/20/1992	PCT		
		WO 92/13081	08/06/1992	PCT		
		WO 93/03769	03/04/1993	PCT		
		WO 93/06223	04/01/1993	PCT		

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Sheet 2 of 9

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Filing Date	August 22, 2003
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Examiner Name	Maria Marvich, Ph.D. (presumed)
Attorney Docket Number	2578-4489.1US

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		US- 5,474,935	12/12/1995	Chatterjee et al.	
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		US- 5,559,099	09/24/1996	Wickham et al.	
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		US- 5,770,442	06/23/1998	Wickham et al.	
		US- 5,922,315	07/13/1999	Roy	
		US- 6,127,525	10/03/2000	Crystal et al.	
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		WO 93/07282	04/15/1993	PCT		
		WO 93/07283	04/15/1993	PCT		
		WO 94/08026	04/14/1994	PCT		
		WO 94/10323	05/11/1994	PCT		
		WO 94/11506	05/26/1994	PCT		
		WO 94/15644	07/21/1994	PCT		
		WO 94/17832	08/14/1994	PCT		
		WO 94/24299	10/27/1994	PCT		
		WO 94/26915	11/24/1994	PCT		

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Sheet 3 of 9

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Filing Date	August 22, 2003
First Named Inventor	Havenga et al.
Group Art Unit	1636 (presumed)
Examiner Name	Maria Marvich, Ph.D. (presumed)
Attorney Docket Number	2578-4489.IUS

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		WO 95/05201	02/23/1995	PCT		
		WO 95/06745	03/09/1995	PCT		
		WO 95/14785	06/01/1995	PCT		
		WO 95/16037	06/15/1995	PCT		
		WO 95/21259	08/10/1995	PCT		
		WO 95/26412	10/05/1995	PCT		
		WO 95/27071	10/12/1995	PCT		
		WO 95/31187	11/23/1995	PCT		
		WO 95/31566	11/23/1995	PCT		
		WO 96/00790	01/11/1996	PCT		
		WO 96/07739	03/14/1996	PCT		
		WO 96/10087	04/04/1996	PCT		
		WO 96/13597	05/09/1996	PCT		
		WO 96/14837	05/23/1996	PCT		
		WO 96/17073	06/06/1996	PCT		
		WO 96/18740	06/20/1996	PCT		
		WO 96/26281	08/29/1996	Wickham et al.		
		WO 97/00326	01/03/1997	PCT		
		WO 97/24453	07/10/1997	PCT		
		WO 97/38723	10/23/1997	PCT		
		WO 98/07865	02/26/1998	PCT		
		WO 98/11221	03/19/1998	PCT		
		WO 98/13499	04/02/1998	PCT		
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		WO 00/70071 A1	11/23/2000	Bout Abraham		
		WO 02/24730 A2	03/28/2002	Crucell Holland B.V.		

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				Group Art Unit	1636 (presumed)
				Examiner Name	Maria Marvich, Ph.D. (presumed)
Sheet	4	of	9	Attorney Docket Number	2578-4489.1US

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS			
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		ALBIGES-RIZO et al., "Human Adenovirus Serotype 3 Fiber Protein," Journal of Biological Chemistry, 266(6), 3961-3967 (1991).	
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Examiner Signature		Date Considered	
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		Filing Date	August 22, 2003
		First Named Inventor	Havenga et al.
		Group Art Unit	1636 (presumed)
		Examiner Name	Maria Marvich, Ph.D. (presumed)
Sheet 5 of 9	Attorney Docket Number	2578-4489.1US	

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		COTTEN et al., "Transferrin-polycation-mediated introduction of DNA into human leukemic cells: Stimulation by agents that affect the survival of transfected DNA or modulate transferrin receptor levels," Proc. Natl. Acad. Sci. USA, 87, 4033-4037 (1990).	
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<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)				Application Number	To be assigned
				Filing Date	August 22, 2003
				First Named Inventor	Havenga et al.
				Group Art Unit	1636 (presumed)
				Examiner Name	Maria Marvich, Ph.D. (presumed)
Sheet	8	of	9	Attorney Docket Number	2578-4489.1US

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		NOVELLI et al., "Deletion Analysis of Functional Domains in Baculovirus-Expressed Adenovirus Type 2 Fiber," Virology, 185, 365-376 (1991).	
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		WADELL, G., "Molecular Epidemiology of Human Adenoviruses," Curr. Top. Microbiol. Immunol., 110, 191-220 (1984).	

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		WAGNER et al., "Coupling of adenovirus to transferrin-polylysine/DNA complexes greatly enhances receptor-mediated gene delivery and expression of transfected genes," Proc. Natl. Acad. Sci. USA, 89, 6099-6103 (1992).	
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		International Search Report, International Application No. PCT/EP01/10999, dated March 26, 2002 (6 pages).	
		PCT International Preliminary Examination Report, PCT/EP01/10999, dated September 23, 2002, 11 pages.	

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